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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,689

04/07/2005

Ulrich Weber

LO29-023

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EXAMINER

MARTINEZ, JOSEPH P

ART UNIT

PAPER NUMBER

2873

MAIL DATE

DELIVERY MODE

06/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,689

Applicant(s)

WEBER ET AL.

Examiner

/Joseph Martinez/

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4 and 8-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 4 and 8-25 is/are allowed.
- 6) ☒ Claim(s) 26-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3-22-07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 2-28-07 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26-39 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Ikeda (5638223).

Re claim 26, Ikeda teaches for example in fig. 2-4, a projection objective in microlithography for producing semiconductor components, the projection objective comprising: a first housing comprising (41) at least one first optical element (lenses of

41) having a first optical axis (AX1); and a second housing (42 or 43 or 44) comprising a structural configuration that is different from a structural configuration of the first housing (fig. 4; wherein the examiner interprets the provided lenses shown in 41 to be a different configuration than the lenses shown in 42 or 43 or 44 and therefore teaches the claimed limitation), the second housing comprising at least one second optical element having a second optical axis (AX2 or AX3 or AX1 of 44), and the second housing comprising a seat (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) configured for removably mounting the first housing in an adjustment relationship (col. 5, ln. 9-11).

Re claim 27, Ikeda further teaches for example in fig. 2-4, the first optical axis (AX1 of 41) is collinear with the second optical axis (AX1 of 44).

Re claim 28, Ikeda further teaches for example in fig. 2-4, the first optical axis (AX1) extends perpendicularly to the second optical axis (AX2).

Re claim 29, Ikeda further teaches for example in fig. 2-4, the first optical axis (AX1) extends parallel with the second optical axis (AX3).

Re claim 30, Ikeda further teaches for example in fig. 2-4, at least one of the first (41) and the second housings (42 or 43 or 44) comprises another seat (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) configured for removably mounting of at least one of an optical element and an optical subassembly (col. 5, ln. 9-11; wherein the examiner

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interprets the ability for the user to remove the lens barrel via 32a and therefore teaches the claimed limitation) in an adjustment relationship (col. 5, ln. 9-11).

Re claim 31, Ikeda further teaches for example in fig. 2-4, at least one of the first (41) and the second housings (42 or 43 or 44) comprises a plurality of seats (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) configured for removably mounting of at least one of an optical element and an optical subassembly and another housing (col. 5, ln. 9-11; wherein the examiner interprets the ability for the user to remove the lens barrel via 32a and therefore teaches the claimed limitation) in an adjustment relationship (col. 5, ln. 9-11).

Re claim 32, Ikeda further teaches for example in fig. 2-4, the plurality of the seats comprises at least two seats (seats for 45 and seats for 41) being substantially planar (fig. 4) and in parallel relation to one another (fig. 4).

Re claim 33, Ikeda further teaches for example in fig. 2-4, the plurality of the seats comprises at least two seats (seats for 42 and seats for 43) being substantially planar (fig. 4) and in perpendicular relation to one another (fig. 4).

Re claim 34, Ikeda further teaches for example in fig. 2-4, the first housing (41) comprises a seat (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) configured for removably mounting at least one of an optical element and an optical subassembly (col.

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5, ln. 9-11; wherein the examiner interprets the ability for the user to remove the lens barrel via 32a and therefore teaches the claimed limitation) in an adjustment relationship (col. 5, ln. 9-11), the seat of the first housing (41) in parallel relation (fig. 4) to the seat of the second housing (45).

Re claim 35, Ikeda further teaches for example in fig. 2-4, the first housing (41) comprises a seat (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) configured for removably mounting at least one of an optical element and an optical subassembly (col. 5, ln. 9-11; wherein the examiner interprets the ability for the user to remove the lens barrel via 32a and therefore teaches the claimed limitation) in an adjustment relationship (col. 5, ln. 9-11), the seat of the first housing (41) in perpendicular relation (fig. 4) to the seat of the second housing (42).

Re claim 36, Ikeda further teaches for example in fig. 2-4, 5A and 6A, the first (41) and the second housing (42 or 43 or 44) comprise a first and a second barrel structure (fig. 5A, 6A), respectively, and wherein the first and the second optical elements are arranged to perform at least transmittance of electromagnetic radiation through the first and the second barrel structures (col. 2, ln. 46-47).

Re claim 37, Ikeda further teaches for example in fig. 2-4, comprising a light source (S), the light source comprising a laser (col. 4, ln. 9).

Re claims 38 and 39, Ikeda further teaches for example in fig. 2-4, an extreme ultraviolet (EUV) system (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight) or a reticle masking (REMA) system (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight) comprising the projection objective (fig. 4).

Allowable Subject Matter

Claims 1, 4 and 8-25 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1, 20 and 25.

Specifically regarding claim 1, Ikeda (5638223) teaches the state of the art of a projection objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including provided as said further external surfaces are two mutually parallel seats which lie at an angle of less than 30 degrees to a further optical axis, as claimed.

Specifically regarding claim 20, Ikeda (5638223) teaches the state of the art of a projection objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including provided are two mutually parallel seats which lie at an angle of less than 30 degrees to a further optical axis; and further comprising a fourth seat arranged at an angle of 45 degrees +/- 15 degrees to the first seat and to said two mutually parallel seats, and wherein arranged on said fourth seat is a deflecting mirror for producing a third optical axis for a second housing structure, as claimed.

Specifically regarding claim 25, Ikeda (5638223) teaches the state of the art of a projection objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including provided as said further external surfaces are two mutually parallel seats which lie at an angle of less than 30 degrees to a further optical axis; and further comprising a fourth seat arranged at an angle of 45 degrees +/- 15 degrees to the first seat and to said two mutually parallel seats, and wherein arranged on said fourth seat is a deflecting mirror for producing a third optical axis for a second housing structure, as claimed.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joseph Martinez/
Patent Examiner, AU 2873
5-25-07